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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/509,466	06/13/2000	BENGT ROTHMAN	705/72338-2	7651

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EXAMINER

MULLINS, BURTON S

ART UNIT PAPER NUMBER

2834

DATE MAILED: 05/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/509,466

Applicant(s)

ROTHMAN, BENGT

Examiner

Burton S. Mullins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2002.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-7 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Suspension

1. Pursuant to the Board of Appeal's final decision regarding U.S. Application No. 08/973,019, suspension has been lifted. As set forth in the decision on petition requesting suspension, the instant application was granted a suspension pending the decision on appeal of the '019 application. On November 27, 2002, the Board affirmed the rejection of the '019 application and on August 27, 2003, the Board denied applicant's request for reconsideration, thus terminating prosecution of the '019 application. An action on the merits follows.
2. In light of the timely filed petition with the Request for Reconsideration on April 11th, 2002, the finality of the rejection of the last Office action is withdrawn.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shildneck (USP 3,014,139) in view of Elton et al. (USP 4,853,565). Shildneck discloses the claimed invention except for having his cable winding comprised of at least one semiconducting layer around the conductor. Shildneck discloses an improved continuous winding for an electromagnetic device such as a large turbine-driven generator, the winding employing an improved form of flexible insulated conductor for the laminated armature core of the dynamo electric machine. Elton et al. teach that it is known to have an electrical cable comprising an internal grading layer of semi-conducting pyrolyzed glass fiber layer in

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electrical contact with the cable conductor. In another form of embodiment, Elton et al. teach an electrical cable provided with an exterior

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the cable winding as taught by Elton et al. on the dynamo electric machine of Shildneck, the winding employing a semi-conducting layer, since such a modification according to Elton et al. would have prohibited the development of corona discharge and would equalize the electrical charge generated between two layers.

5. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shildneck (USP 3,014,139) in view of Elton et al. (USP 4,853,565) and further in view of Starcevic (USP 4,258,280).

Shildneck and Elton disclose the claimed invention except for details of the dynamo electric machine support for the stator and rotor elements.

Starcevic teaches a support structure similar to that claimed by applicant. Starcevic teaches a supporting structural component such as a bearing for a rotor of a large electrical machine, the rotor of which rotates about a vertical axis and comprises concentric inner and outer rings joined by rigid rectilinear spoke-like connecting elements spaced uniformly around the circumference.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have used the supporting structure as taught by Starcevic to the dynamo electric machine as disclosed by Shildneck and Elton et al. since such a modification according to Starcevic would provide a device having a rigid construction able to transmit axial, radial and tangential forces.

Response to Arguments

6. Applicant's arguments filed 4-11-02 have been fully considered but they are not persuasive. Regarding applicant's argument that Shildneck is a "low voltage" machine, the specification states that "high voltage" means "electrical voltages in excess of 10 kV" (p.1, lines 11-12). Shildneck's "large turbine-driven generator" operates at levels in excess of 10 kV. See, for example, the declaration of Mr. Fenton on December 29, 2000 in related case 08/973,019, which states that Shildneck's generator operates "from 10 kV to 15 kV (with 13.8 as the typical most frequently used value for these generators)" (paragraph 53). Thus, as defined by the specification and by applicant's own admission, and since language in the claims is given the broadest reasonable interpretation, Shildneck qualifies as a "high voltage" machine.

Regarding applicant's arguments that Shildneck is silent with respect to the problem of corona discharge does not convince the examiner of non-obviousness since one cannot show this by attacking the references individually where the rejection is based on a combination of references. In *re Young*, 159 USPQ 725 (CCPA 1968). Elton clearly is directed toward suppression of corona and that corona typically appears in machines where there is a high potential difference between the windings (c.1, lines 26-27), i.e., in a high voltage machine.

Regarding the argument that Elton's cable would be stiff and not obvious for use as Shildneck's flexible cable, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Further, the courts have held "it is well settled that the test of obviousness is

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not whether the features of one reference can be bodily incorporated into the structure of another and proper inquiry should not be limited to the specific structure shown by the references, but should be into the concepts fairly contained therein, and the overriding question to be determined is whether those concepts would suggest to one skilled in the art the modifications called for by the claims.” In re Van Beckum, 169 USPQ 47 (CCPA 1971). In this case, Shildneck teaches that the rigidity of a conductor cable primarily depends on the type of insulation used (c.2, lines 28-30). Shildneck uses silicon-rubber insulation for his flexible cable (c.3, line 73-c.4, line 2). Elton’s teaching at c.8, lines 3-9 that “the semi-conducting layer is a glass fiber which can be chopped, mixed with resin and molded, or blown on any complex shaped substrate [so that] the layer can be placed in intimate contact with substantially all of the exterior surface of the insulator or housing...” suggests that the semi-conducting layer can be “molded” or “blown” onto a cable without causing cable rigidity.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029.

The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 571-272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Burton S. Mullins
Primary Examiner
Art Unit 2834

bsm
19 May 2004